

IN THE CLAIMS

Claim 1 (Currently Amended). An easy-tear, halogen-free winding tape composed of a film layer and of an adhesive layer, the film comprising a copolymer of

- (a) α -olefin of the formula $R-CH=CH_2$, where R is hydrogen or an alkyl radical having 1 to 10 carbon atoms, and
- (b) an α,β -ethylenically unsaturated carboxylic acid of 3 to 8 carbon atoms, and
- (c) optionally a further monoethylenically unsaturated monomer, ~~10 to 90% of the hydrogen atoms of the carboxylic acid groups of the copolymer being substituted by metal ions as a result of neutralization~~

10 to 90% of the hydrogen atoms of the carboxylic acid groups of the copolymer being substituted by metal ions as a result of neutralization.

Claim 2 (Previously Presented). The winding tape of claim 1, wherein the metal ions of the copolymer are monovalent to trivalent and come optionally from groups I, II, III, IV-A and VII of the Periodic Table.

Claim 3 (Previously Presented). The winding tape of claim 1, wherein the fraction of copolymer is at least 10% by weight.

Claim 4 (Previously Presented). The winding tape of claim 1, wherein the film layer is produced by blown-film extrusion.

Claim 5 (Currently Amended). The winding tape of claim [1] 4, wherein the longitudinal draw ratio (ratio of film winding speed to melt speed in the die) is 2 to 25, the frost line is smaller than 160 cm, the longitudinal draw ratio divided by the frost line is greater than 0.1 cm^{-1} , the blow-up ratio is situated in the range from 1 to 4, and/or the die gap is situated in the range from 1 to 1.6 mm.

Claim 6 (Currently Amended). The winding tape of claim [1] 4, wherein the tensile strength as determined by the method of Elmendorf in the machine direction is at least twice the tensile strength in the cross direction.

Claim 7 (Currently Amended). The winding tape of claim [1] 4, wherein film layer thickness is from 30 to 180 μm , force at 1% elongation in machine direction is 0.6 to 4 N/cm, force at 100% elongation is from 5 to 20 N/cm, breaking elongation is 200 to 1000%, tensile strength is 6 to 40, and/or breakdown voltage is at least 5 kV/100 μm .

Claim 8 (Previously Presented). The winding tape of claim 1, wherein there is a primer layer between film layer and adhesive layer, the amount of the adhesive layer is 10 to 40 g/m², the bond strength to steel is 1.5 to 3 N/cm, the unwind force is 1.2 to 6.0 N/cm at an unwind speed of 300 mm/min and/or the holding power is more than 150 min.

Claim 9 (Previously Presented). The winding tape of claim 1, wherein the winding film comprises a solvent-free pressure-sensitive adhesive which is produced by coextrusion, melt coating or dispersion coating-the surface of the film to which the adhesive is applied being subjected to flame or corona pretreatment or being provided with adhesion promoter layer which is applied by coextrusion or coating.

Claim 10 (Previously Presented). The winding tape of claim 1, wherein the pressure-sensitive adhesive is polyacrylate-based.

Claim 11 (Previously Presented). The winding tape of claim 1, wherein said winding tape is black.

Claim 12 (Previously Presented). The winding tape of claim 1, wherein the winding film is plasticizer-free or the plasticizer content sufficiently low that the fogging number is above 90%.

Claim 13 (Previously Presented). The winding tape of claim 1, wherein the film layer is produced by calender processing, in which case the melt index of the copolymer is below 5 g/10 min, and/or extrusion processing, in which case the melt index of the copolymer is between 0.2 and 10 g/10 min.

Claim 14 (Previously Presented). The winding tape of claim 1, wherein the copolymer-containing film layer is blended with a further polymer.

Claim 15 (Currently Amended). The winding tape of claim 2, wherein the film layer comprises copolymer-containing film layer coextruded with a further film layer, coextruded with said copolymer-comprising film, which comprises [a] an ethylene-based polymer, the ethylene-based polymer having a melt index of less than 10 g/10 min.

Claim 16 (Previously Presented). The winding tape of claim 1, wherein at least one layer of the winding tape is crosslinked.

Claim 17 (Previously Presented). A process for producing the winding tape of claim 1, wherein

- the winding film is wound to logs, which then, to increase the unwind force, are conditioned by heat treatment and subsequently slit into rolls, the unwind force of the material thus produced at 300 mm/min being higher by at least 50% than without such a measure, or
- the winding film, for the purpose of increasing the unwind force, is subjected to a flame or corona treatment or is provided with a polar coextrusion layer and is subsequently processed into rolls, the unwind force of the material thus produced at 300 mm/min being higher by at least 50% than without such a measure, or
- the winding film is slit by a process which leads, as a result of rough slit edges, to easier hand tearability, the breaking elongation of the winding-film rolls thus slit being lower by at least 30% than in the case of slitting with sharp blades,
- the winding film is slit on an automatic slitter with defined knife advancement speed,
- the winding film is wound on a core with an inside diameter of 30 to 40 mm,

Claim 18 (Previously Presented). A method for bundling, protecting, labeling, insulating or sealing ventilation pipes or wires or cables and for sheathing cable harnesses in vehicles or field coils for picture tubes, which comprises bundling, protecting, labeling, insulating or sealing said ventilation pipes or wires or cables or sheathing said cable harnesses in vehicles or field coils for picture tubes with the winding tape of claim 1.

Claim 19 (Currently Amended). An easy-tear, halogen-free winding tape composed of a film comprising a copolymer of

- (a) α -olefin of the formula $R-CH=CH_2$, where R is hydrogen or an alkyl radical having 1 to 10 carbon atoms, and
- (b) an α,β -ethylenically unsaturated carboxylic acid of 3 to 8 carbon atoms, and
- (c) optionally a further monoethylenically unsaturated monomer, ~~10 to 90% of the carboxylic acid groups of the copolymer having been ionized as a result of neutralization with metal compounds~~
10 to 90% of the hydrogen atoms of the carboxylic acid groups of the copolymer being substituted by metal ions as a result of neutralization.

Claim 20 (Previously Presented). The winding tape of claim 2, wherein said ions are alkali metals of said groups.

Claim 21 (Previously Presented). The winding tape of claim 20, wherein said alkali metal is sodium.

Claim 22 (Previously Presented). The winding tape of claim 3, wherein said fraction is at least 50% by weight.

Claim 23 (Previously Presented). The winding tape of claim 5, wherein the longitudinal draw ratio (ratio of film winding speed to melt speed in the die) is from 5 to 10, the longitudinal draw ratio divided by the frost line is greater than 0.2 cm^{-1} and the blow-up ratio is situated in the range from 1.8 to 2.5.

Claim 24 (Previously Presented). The winding tape of claim 6, wherein said tensile strength in the machine direction is at least four times the tensile strength in the cross direction.

Claim 25 (Previously Presented). The winding tape of claim 7, wherein film layer thickness is from 55 to 100 μm ,
 breaking elongation is 30 to 400%,
 tensile strength is 8 to 15 N/cm and/or
 breakdown voltage is at least 5 kV/100 μm .

Claim 26 (Previously Presented). The winding tape of claim 8, wherein the amount of the adhesive layer is 18 to 28 g/m², the unwind force at an unwind speed of 300 mm/min is 1.6 to 4.0 N/cm and/or the holding power is more than 150 min.

Claim 27 (Previously Presented). The winding tape of claim 26, wherein the unwind force at an unwind speed of 300 mm/min is 1.8 to 2.5 N/cm.

Claim 28 (Previously Presented). The winding tape of claim 9, wherein said adhesive is a pressure-sensitive dispersion adhesive.

Claim 29 (Previously Presented). The winding tape of claim 13, wherein the film layer is produced by calender processing, in which case the melt index of the copolymer is below 1 g/10 min and/or extrusion processing, in which case the melt index of the copolymer is between 0.5 and 5 g/10 min.

Claim 30 (Previously Presented). The winding tape of claim 29, wherein the film layer is produced by calender processing and the melt index of the copolymer is below 0.7 g/10 min.

Claim 31 (Previously Presented). The winding tape of claim 14, wherein said further polymer is an ethylene-based polymer.

Claim 32 (Previously Presented). The winding tape of claim 15, wherein said melt index is less than 6 g/10 min.

Claim 33 (Previously Presented). The winding tape of claim 16, wherein said at least one layer of the winding tape is crosslinked by ionizing radiation or by modification of a polymer with silane groups.